

**FEATURES**

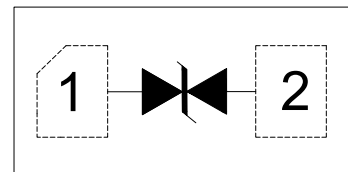
- ✧ Protects one bi-directional I/O line
- ✧ Low clamping voltage
- ✧ Low operating voltage: 5.0V
- ✧ RoHS compliant

**MAIN APPLICATIONS**

- ✧ Cell phone handsets and accessories
- ✧ Personal digital assistants (PDA's)
- ✧ Notebooks, desktops, and servers
- ✧ Portable instrumentation
- ✧ Pagers
- ✧ Microprocessor based equipment



DFN1006-2L(Bottom view)



Pin Configuration(Top view)

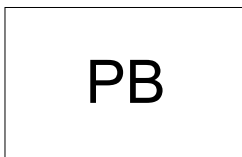
**PROTECTION SOLUTION TO MEET**

- ✧ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ IEC61000-4-5 (Lightning) 8A (8/20µs)

**MECHANICAL CHARACTERISTICS**

- ✧ DFN1006-2L package
- ✧ Molding compound flammability rating: UL 94V-0
- ✧ Quantity per reel: 10,000pcs
- ✧ Lead finish: lead free

**MARKING CODE**



**ORDERING INFORMATION**

PART No.	PACKAGE TYPE	QUANTITY(PCS) REEL	DESCRIPTION
TEB05DFA	DFN1006-2L	10,000	7 inch reel pack

**ABSOLUTE MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$ , RH=45%-75%, unless otherwise noted)

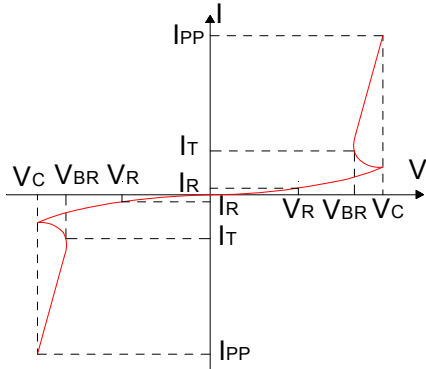
Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 8/20 $\mu\text{s}$ waveform	$P_{PP}$	60	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	+/- 30 +/- 30	kV
Lead soldering temperature	$T_L$	260 (10 sec.)	$^{\circ}\text{C}$
Operating junction temperature range	$T_J$	-55 to +125	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$ )

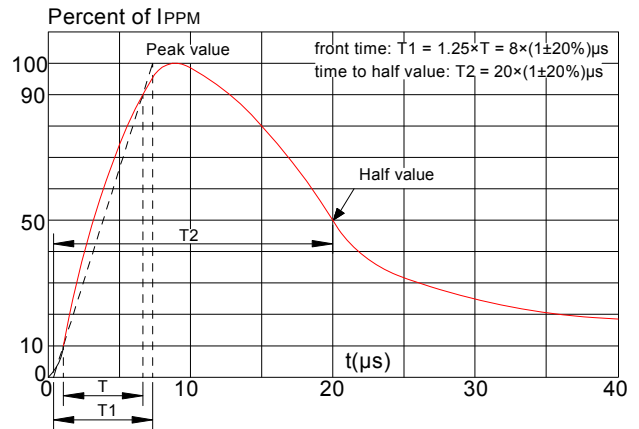
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	$V_{RWM}$				5.0	V
Reverse breakdown voltage	$V_{BR}$	$I_T=1\text{mA}$	5.6	7	8.5	V
Reverse leakage current	$I_R$	$V_{RWM}=5\text{V}$			0.1	$\mu\text{A}$
Peak pulse current	$I_{PP}$	$t_P=8/20\mu\text{s}$			8	A
Clamping voltage	$V_C$	$I_{PP}=8\text{A}$ , $t_P=8/20\mu\text{s}$		7.2	12	V
Junction capacitance	$C_J$	$V_R=0\text{V}$ , $f=1\text{MHz}$		15	18	pF

## RATINGS AND V-I CHARACTERISTICS CURVES ( $T_A=25^{\circ}\text{C}$ , unless otherwise noted)

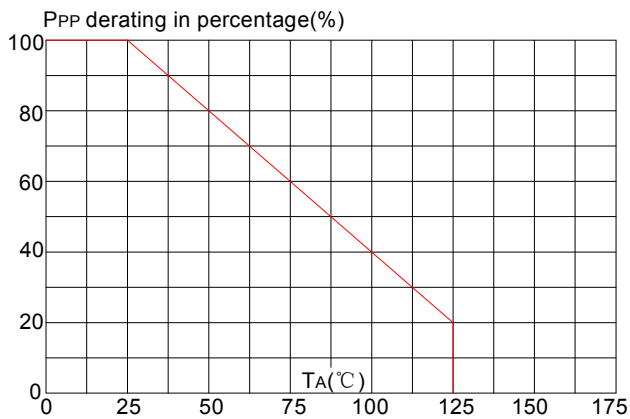
**FIG.1: V- I curve characteristics (Bi-directional)**



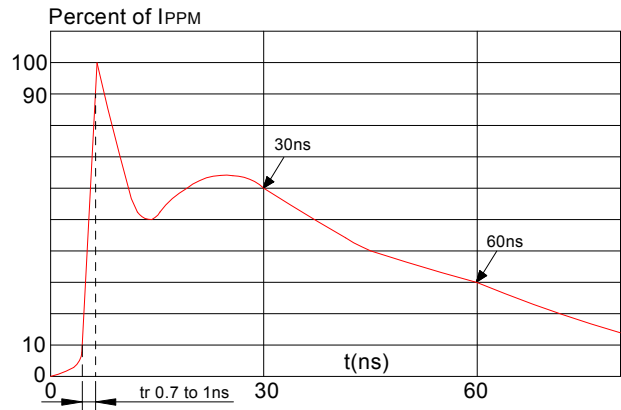
**FIG.2: Pulse waveform (8/20 $\mu\text{s}$ )**

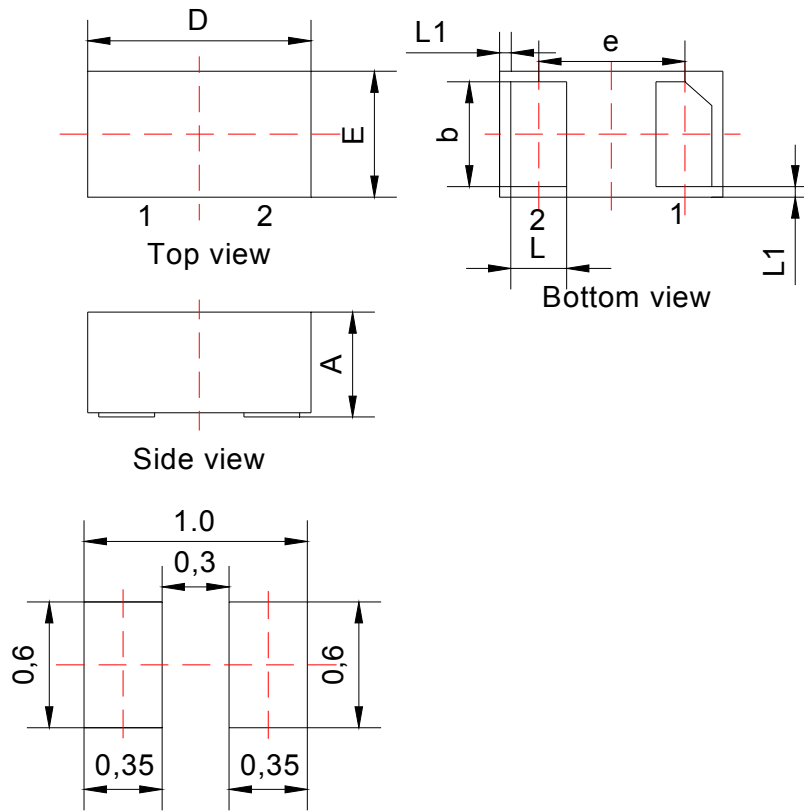


**FIG.3: Pulse derating curve**



**FIG.4: ESD clamping (20kV contact)**





Recommended soldering footprint(mm)

Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.32	0.42	0.013	0.017
b	0.45	0.55	0.018	0.022
D	0.95	1.05	0.037	0.041
e	0.55	0.65	0.022	0.026
E	0.55	0.65	0.022	0.026
L	0.28	0.38	0.011	0.015
L1	0.00	0.10	0.000	0.004